It is unquestionably the duty of the surgeon to endeavor, in every instance where needles or parts of needles have entered any part of the body, to ascertain their precise locality, and to attempt their removal, by an operation, if necessary, whenever this can be performed "without involving any serious risk of wounding some important nerve or other structure, or of exciting a high degree of inflammation." But we cannot accede to the propriety of the direction to spend hours in exploring with the scalpel in every direction, at the part where the needle enters, particle by particle, until the needle is found.

The following cases of phlegmasia dolens—the one occurring after typhoid fever, and the other, in both the upper and lower extremities, after parturition—by Dr. James Fountain, of Jefferson Valley, are not without interest:—

"The case of phlegmasia dolens I mentioned at our annual meeting, occurred in a young, healthy girl, aged 14 years. A typhoid fever broke out in the neighbourhood of her father, in the winter of 1847. The mother acted as nurse in two fatal cases, and contracted the disease. Immediately on her convalescence, her daughter had it. It ran through its regular stages, and subsided. Some few days after its close, she was seized with pain in the calf of the left leg, in the morning. The mother applied some warm flannels to the part through the day, but, about ten o'clock in the evening, the pain had reached the groin, and had become so extremely violent, that she screamed with it incessantly. At twelve at night, her father called me up. I sent her three powders, each containing about three grains of opium, and two of camphor—one to be taken every two hours, till relief be obtained. Next morning, I found she had taken two of the powders, and had found relief. Her leg was tumefied from the toes to the hip; skin white, and extremely tender, but not painful, unless the limb was moved; the swelling was tense and elastic; the joints were not affected internally. In the afternoon, I gave her an emetic of tart. ant. with tinct. sem. colchici. It operated freely, and the limb was immediately less sensitive. On the next day it was far less so, and in a day or two it became œdematous, and by means of bandaging and some mild diuretics, it disappeared.

"About thirty years or so ago, I was in the practice of waiting on a Mrs. Horton in her confinements. For three successive labours, her pains seemed not to remit in the least upon the expulsion of the child, but kept on with the same expulsatory effort, after the placenta was expelled, until two or three spoonfuls of tinct. opii had been taken. After the last labour, she had a regular attack of phlegmasia dolens, first in the right leg, then in the right arm, then in the left leg. These were clear cases, and were not rheumatic, for no more pain was produced by moving the joints than by moving the limbs generally. They yielded at once to full doses of opium and camphor, as they always will, and emetics never fail to change the albuminous to a serious condition of the affected limb."

D. F. C.

ART. XXI.—*San Francisco Medical Society; Annual Address delivered before the Society, pursuant to appointment, Jan'y 27, 1857.* By HENRY GIBBONS, M.D. 8vo. pp. 24.

FROM the annual address of Dr. Henry Gibbons, delivered before the San Francisco County Medical Society, January 27, 1857, a production replete with correct principles and liberal views, well and boldly expressed, we select the following paragraphs, as presenting, in brief outline, a general view of the climate and diseases of California:—

"The climate of the Pacific coast, in its etiological relations, opens an immense field of observation and study. In the winter season, if winter it can be called, from November to April inclusive, there is but little difference of temperature on the seaboard, in a range of fifteen degrees, from the mouth of the Columbia River on the north, to San Diego on the south. Nor is there much difference inland, except that the more elevated regions are liable to colder

weather. Thus whilst snow ond ice nre rarely seen on the coast, the mountoins of the Sierra Nevnda rongo nre covered witb snow nearly nll the year.

"In the summer season, a similnr uniformity of climate presents itself on the seaboard; but during this period, from May to October, n wave of cold air flows daily from the ocean, often loaded witb folling mist. So little differencc is there in temperatnre between winter ond summer in this wide range of coast, thot flannel gnrments are constantly worn, and no ono thinks of changing the dress from winter to summer. But beyond tbe mountain barrier, which skirts the ocean, and walls out the sea breeze from the interior, the heot of summer is often intense, the mercury rising frequently to 100 degrees or upwards. At the same time, the air is gencrally very dry. Almost invorinbly, however, the nights nre pleasantly cool, so that sleeping is well done evorywhere.

"A few yeors ago it was supposed that the climate of California wos nlmost proof against pulmonary diseose. In 1850, if an individuol happened to cough in church, all eyes were turned on him witb cnriosity and nnnzement. Tho native population, it was said, were entirely exempt from disorders of the lungs. But time has dispelled tbe delusion. Pnlmonnry consumption nnd the kindred affections have become the great enemy of human life, ns in the Atlantic States. Our entire climate everywhere is less injurious, it is true, to pectoral disorders than tbe corresponding lotitudes on tbe Atlantic. But, the cold and searching winds of summer on tbe seaboard, while they often build up the strength by their bracing and tonic power, are in general unfavorable to patients suffering from the closs of maladies nnder consideration; and tbe extremo heat of tbe interior is equally noxious, from its debilitating influence. The relation of our climate to this class of diseases may be summed np in n few words. Persons afflicted with bronchial or pulmonary disorders, in the incipient stage, ore almost invariably benefited, and oft times cured by trnversing a tropical climate, and taking up their abode in California. On tbe other hand, such diseases ore developed *ab initio* in this country, nbout in the same degree as in the Atlantic States. As tho female population increases, the bills of mortality exhibit a corresponding increase in the number of victims.

"Some years ago, it was a general practice to send pulmonary cases to the Sandwich Islands. But experience hns shown its futility. We stand in need of some other sanitarium. In many cases, change of climate is the only remedy; and n genial climate, not liable to sudden or materinl fluctuations, and exempt from strong winds, are requisite conditions. In the summer season, the region bordering on tbe Bay, at its northern and southern extremities, may serve the purpose, holding, as it does, a medinm place between tbe damp ond chilly ocean climate of San Francisco and tbe arid and scorching heat of the interior. In tbe winter we must turn our attention to the south. Los Angelos and San Diego, in the southern section of tho State, nre still too far north. The table land of Mexico will probably supply the desideratum. But even in Mexico, proximity to the ocean must be nvoided. Twelve months ngo, in a brief stay at Manzanello, which is on tbe western coast, in latitude 19°, I observed among the native population an extraordinary prevalence of pulmonary disease, caused, in all probability, by their sleeping on tbe damp ground, exposed, more or less, to tbe cool night wind. Sixty or seventy miles inland, in the vicinity of Cotima, is a different climote, said to be much more salubrious. Witb nll the knowledge I now possess on the subject, this spot appears preferoble to any other, and, accordingly, I have latterly recommended it to my patients, instead of the Sondwich Islands. This subject, however, deserves much more consideration than it has yet received."

"Epidemics arc of rare occurrence in this Stote. At on early period, when the comforts of life were greatly wanting, diarrbœa and dysentery were prevolent, and extremely fotal. In those days men dwelt in tents, nnd slept on the earth; they used a diet of nnimal food, nlmost exclusively, undiluted with vegetobles and fruit, nnd composed of beef run down before being killed, and they employed that *blessed* prophylnctic, brandy. With improved habits of life, ond wbolesome diet, and n diminished nntipathy to the internal use of cold water, these diseases bove greotly diminisbed, nnd death from dysentery or diarrbœo is comparatively rare.

"In the winter of 1850–51, the malignant cholera was epidemic in various localities, visiting our territory in its regular course of march on the western coast of North America. In this city the mortality was light, but Sacramento was nearly depopulated. Since that time, sporadic cases have occasionally appeared, and patients laboring under the malady, and dying with it, have been frequently landed from steamships from Nicaragua and Panama, and taken to the county hospital, or otherwise disposed of. The disease has, in no well authenticated instance, extended to others. Several cases were said to have appeared in the neighbourhood where the clothing from an infected vessel was sent to be cleansed, giving support to the theory which attributes the spread of malignant cholera to exhalations from the feces of its victims. But as the statements to that effect were connected with some pecuniary interests or speculations, they are not entitled to credit.

"In June and July, 1851, bronchial affections first made their appearance in San Francisco, in the form of an influenza. Since that date, catarrhal disorders have prevailed nearly every summer, in a sufficient degree to be pronounced epidemic."

"Croup is a disease from which the infantile population of our State suffer very much. It is apt to be violent and intractable, terminating fatally in many cases, perhaps as much for want of timely aid and proper nursing as from the intrinsic violence of the malady."

"Scarlatina first presented itself to the notice of the American inhabitants in the spring of 1851, on the heels of the cholera. There were few cases, however, and they were of a mild grade. Since that time it has occurred sporadically, and with the same tractable character. A form of disease bordering on malignant scarlatina has committed sad havoc in certain localities in the past two or three years. It commences with inflammation, and mostly ulceration, of the fauces and tonsils, exhibiting no peculiar features, and exciting no alarm. Sometimes a cough is present from the beginning. Suddenly the patient is seized with croupy symptoms, and in a brief period, from six to twenty-four hours, life is extinguished. The muscular strength and the faculties of the mind are generally retained to a late period. The pulse is that of scarlatina, but there is no eruption. Delirium and convulsions seldom occur. Children are its ordinary victims, though adults are not always exempt.

"A striking feature of this malady is its fatality in certain families. It may visit only a few houses in a village or neighbourhood, but in them it is apt to carry off all the young children, in rapid succession. In San Francisco, it has not prevailed so much as in Oakland, Sonoma, and some other towns. In the only instances within my knowledge, in this city, where all, or nearly all the children of the household were swept away, the victims were trophies of homœopathic practice. I have had no fatal, and no very malignant cases, in my own charge exclusively, but have visited a number in this city, and at a distance, in consultation, where no opportunity was afforded for autopsic examination. In these cases the fatal result appeared to arise from the rapid extension of the inflammation to the air-passages and lungs, without a full development of the proper symptoms.

"The treatment that has proved most salutary, under my observation, consists mainly of the free internal use of quinia, and the application of nitrate of silver, in solution, to the fauces, with a large blister to the chest in case of pneumonia."

"Diseases of the urinary passages are frequent and troublesome, especially chronic affections of the urethra, which often defy all treatment, yielding only to time. In fact, it may safely be said, that an unusual tendency exists on this coast to disorders of the mucous membranes in general.

"Insanity, as might be expected, is fearfully prevalent in California. It grows directly out of the excited mental condition of our population, to which the common use of alcoholic drinks is a powerful adjunct. Other cerebral disorders do not abound, excepting meningitis in infants. It has been remarked that, notwithstanding the constant exposure of a large portion of the male population to the extreme heats of the interior, 'sun-stroke' is scarcely ever heard of."

"There has been observed in the diseases of this coast an extraordinary tendency to the paroxysmal form, or to exacerbations, requiring the use of quinia. This occurs in dysenteries, in pneumonia, in puerperal women—in short, it is traced in almost every affection attended with febrile action. Fevers to which the dubious term malarious is conveniently applied are scattered everywhere, in city and country, and are often endemic in certain districts. In the intermittent phase, they are often excessively annoying by their repeated returns after apparent cure. Typhoid, or rather ataxic, fevers are frequently met with.

"Acute inflammations, requiring the lancet, are not common. It is truly singular to what extent venesection is discarded in California. I am apprehensive that we allow this potent remedy to be too much neglected."

D. F. C.

ART. XXII.—*Experimental Researches relative to the Nutritive Value and Physiological Effects of Albumen, Starch, and Gum, when singly and exclusively used as food.* By W. A. HAMMOND, Assistant Surgeon U. S. A.

THE above is the title of an essay for which a prize was awarded by the American Medical Association at its last session, and which treats of subjects which should enlist the attention of every physician who wishes to practise understandingly. Without a thorough knowledge of the effects of each article of food upon the system, we prescribe at random particular articles of diet for the sick, and are to some extent unable to understand some of the most frequent causes of disease. And yet our actual knowledge on these points is very limited. Magendie indeed showed that neither gelatin nor albumen would suffice to sustain life; and Boussingault proved that fat could not be assimilated in sufficient quantities. Many other isolated facts might be quoted, which have been recorded within the last twenty years; but the want of an accurate knowledge of tissue metamorphosis prevented most of these observers from affording us the rationale of these facts. The experiments of Chossat on animals during inanition, and Lehmann on himself, under different diet, have gone far to enlighten us. But Dr. Hammond has chosen a new field of investigation; and with a diligence and sacrifice of personal comfort worthy of high praise has given us the results of three series of experiments upon himself, recording the daily amount of food and drink taken, and the daily loss of the system by the different emunctories, with remarks upon the results obtained, characterized by the careful consideration and general correctness.

The results of his experiments upon *gum* may be stated in a few words—nearly the whole amount ingested during four days was discharged unaltered by the bowels. This fact is important as showing that the chemistry of our laboratories is after all identical with the chemistry which plays such an important part in all vital phenomena. It has long been known that gum was not rendered endosmotic by any of the digestive fluids, out of the body; but its long use as an article of diet in acute disease has induced among practitioners the conviction that in some way it must be digested. Nothing but such an experiment as Dr. Hammond's could finally settle this point; and henceforth we hope to see gum discarded, or at least only used as a demulcent—it is no more nutritive than rose water is astringent.

The other two series of experiments involve many points of the highest physiological importance. It is not our purpose to discuss them fully. We shall content ourselves with indicating some of them, and advise our readers to take up the essay itself and study it. These two series of researches occupied ten days each; previous to the commencement of the first one, Dr. Hammond determined, by observations of the ingesta and egesta for five days, the ordinary amounts of excretion from the bowels and kidneys under usual diet. Sufficient time was allowed to elapse between the albumen and the starch series for the system to regain its tone. We are presented at the close of each

series with tabular statements of the ingesta and egesta (including the transpiration), temperature of body, variations in weight, height of barometer and of thermometer for each day. Analyses of the blood on the 1st and 10th days of each series are also given, together with tables showing the amount of carbon absorbed in the albumen series, and the relative proportions, in the same series, of the nitrogen absorbed to that eliminated in the forms of urea and uric acid. The conclusions from the albumen experiments may be thus stated:—

1. The amount of albumen in the blood was materially increased, as was also that of the fibrin and of extractive; while the blood-corpuscles and salts were diminished and fat almost disappeared.

2. The animal temperature underwent a very slight diminution.

3. The urea, uric acid, and residue of the urine were increased, while the chlorine, sulphuric, and phosphoric acid diminished.

4. The feces diminished in quantity, relatively, until the 6th day; upon the 8th diarrhœa ensued, thus augmenting the water; the ether-extract diminished, while the alcohol-extract and insoluble residue increased, especially the latter; thus indicating an increase of the bile-resins and the passage of a considerable amount of albumen unaltered.

The albumen used was procured by boiling the serum of bullocks' blood; the quantity averaged 8343 grains daily. No derangement of health ensued until after the 4th day, on which the amount consumed reached 12,725 grains; headache and slight fever occurred. On the 6th day, albumen appeared in the urine. On the 8th, a severe diarrhœa ensued, which continued some days after the close of the investigations. By deducting the amount of insoluble residue from the albumen ingested for each day, Dr. Hammond obtains, as he states, the amount of albumen absorbed; and then proceeds to calculate the actual amount of carbon introduced into the system, and to compare this with the amount required for respiration. He thinks he has proved that the system can absorb enough albumen to support respiration, as the temperature of the body was nearly maintained; and certainly, the daily variations correspond closely with the amount of albumen taken. But is there not an error in assuming that all the albumen which was not absorbed would appear in the course of twenty-four hours in the feces? We think so; and to support it, Dr. H.'s weight decreased continually except on two days, when he consumed about 3000 grains of albumen more than usual; an these days his weight *increased* a few hundred grains. This has an important bearing upon the other point discussed by Dr. H., the proportion of nitrogen in the urea and uric acid to that absorbed. We cannot help thinking that a part of the albumen remained unacted upon in the bowels, and caused the diarrhœa of the 8th day; and that if the stools had been watched for three or four days after the close of the experiments, a large amount of the albumen would have been thus recovered. Of 100 grs. nitrogen absorbed, Dr. Hammond found but 30.03 grs. in the urea and uric acid, instead of $\frac{8}{9}$, as stated by Lehmann; Rigg and Barral found but 50 per cent. and 42 per cent. respectively; so that we must either conclude that these observers were mistaken, or that the nitrogen sought some other way of exit, or remained permanently in the system. Of these, the second is the most probable; the residue of the urine would probably have yielded enough to modify the above proportion considerably. The probability of some of the albumen having escaped subsequently, must also be remembered. The diminution of the ether-extract of the feces indicates that the fat resorbed from the system was consumed in respiration; while the increase of fibrin in the blood very likely was due to the inflamed state of the bowels.

Of the second series of experiments, we have not much to say. Debility ensued on the third day; and soon after palpitation of the heart followed, with evident symptoms of deficient aeration of the blood. Sugar appeared in the urine on the 5th day, and continued to be thus excreted for five days after the experiments terminated. The weight of the body declined but slightly. The urea and uric acid were reduced (we regret to find no mention made of the presence or amount of hippuric acid): while the solid residue increased considerably, probably from the presence of sugar. The ether-extract of the feces

was slightly lessened, the alcoholic and water-extract diminished considerably, while the insoluble residue was very small, thus proving that nearly all the starch (about 10,357 grs. per diem) ingested was disposed of. It should be added, however, that Dr. Hammond continued to lose weight for some days after the experiments ceased. From the analysis of the blood we learn that the fibrin, fat, and extractive increased considerably, while the blood-corpuscles, albumen, and salts diminished. The decrease of the latter is easily explained when we remember that the system was living upon itself. The increase of extractive (from 4.84 to 11.25 parts in 1000) corresponds closely with the amount of sugar stated by Lehmann to exist in the blood before it appears in the urine, though unfortunately no absolute determination of its amount was made. The excess of fat is remarkable, and taken in connection with the fact that the system did not lose weight as might have been expected, indicates strongly the probability of some of the glucose absorbed having been converted into fat. This is probably the most interesting physiological point in the series; while we may take an important lesson in therapeutics from the oppression of the circulatory system induced by the starch diet. We ought to be careful how we administer amylaceous food to patients suffering under diseases of the respiratory organs, for by so doing we put an additional amount of labour upon the latter. A decided increase of temperature and elevation of the pulse were noted by Dr. Hammond.

We hope that these are but the commencement of series of experiments by Dr. Hammond, whose careful precision and sound mode of reasoning admirably fit him for his undertaking.

Since the above was written, Dr. Hammond has kindly permitted us to test his *vital capacity*, which we find equal to 225 cubic inches. As he is not accustomed to the use of the spirometer, this probably falls below his actual capacity, which may therefore be considered normal. J. C. M.

ART. XXIII.—*Essays on the Secretory and the Excito-Secretory System of Nerves in their Relations to Physiology and Pathology.* By HENRY FRASER CAMPBELL, A. M., M. D. One of the Vice-Presidents of the American Medical Association, and Professor of Special and Comparative Anatomy, in the Medical College of Georgia (Augusta). With illustrations. 8vo. pp. 135. J. B. Lippincott and Co., Philadelphia, 1857.

WE have experienced no little surprise at the apparent apathy with which the several communications of Dr. Campbell, in relation to the excito-secretory system of nerves, have been received by the physicians of this country. We had hoped that after the fact of the existence of an excito-secretory nervous action had been fully recognized, and publicly announced by so imposing an authority as the late Dr. Marshall Hall, of London, it would, at once, have attracted the attention it deserved on the part of such as had the time and talents for its further investigation—and of these we have, unquestionably, many in our midst—in order that so important a truth should be confirmed and elucidated, and its relations to physiology and pathology, already, in part, pointed out by Dr. Campbell, more fully determined and developed.

The importance of the discovery of an excito-secretory function as a key to the correct interpretation of many physiological phenomena, and to the elucidation of numerous pathological conditions, in regard to which we have, heretofore, been groping in the dark, must be evident to every one upon even a superficial glance at the subject. To what extent it may lead to a modification and correction of our received opinions in respect to the correlation of divers vital actions, during a state of health, and the true character and connection of the diseased conditions of the several tissues and organs, is a question that can only be determined by future observations and experiments.

That the sensory nerves of the cerebro-spinal system, are not only excitors

of the motory apparatus, but that, under certain circumstances, most of them sustain, also, an analogous relation to the secretory nerves, exciting these, and modifying their action, and thus diminishing, increasing, and altering the secretions of the surfaces upon which they are distributed, according to the extent and character of the excitation applied, is a proposition that we believe to be incontrovertible. In our opinion, the expositions of Dr. Campbell, though confessedly limited, and in many particulars defective, force upon us its adoption. The subject, nevertheless, still opens up a wide field for investigation on the part of both physiologist and pathologist, and it is one that will amply repay those who shall enter upon its cultivation, with the right spirit, and in the right direction.

Most of the essays comprised in the volume before us have been very fully noticed in former numbers of this journal, and a very full abstract has been already given, of the facts upon which are based the claim of Dr. Campbell to priority in the discovery and naming of the excito-secretory system of nerves—which all must admit are clear, positive, and conclusive.

In the essay to which was awarded the prize of the American Medical Association, at its tenth annual session (May, 1857), Dr. Campbell has endeavored to demonstrate the fact that many of the important acts of nutrition and secretion are modified in both health and disease, through the agency of the excito-secretory nerves, and that it is to aberrations in the functions of these nerves, that many of the heretofore mysterious phenomena of diseased action are mainly attributable.

After a general view of the *secretory* system of nerves, in which certain allied facts pertaining to the functions of the two grand divisions of the nervous system—the cerebro-spinal, and the secretory—are presented in a manner which Dr. C. has deemed best calculated to sustain the deductions he advances, subsequently, in reference to the excito-secretory function of the sensory nerves.

"We have seen," he remarks, "that to the ganglionic system, and to this system alone, are confided all those important and mysterious processes which pertain to nutrition and secretion; or, in the words of Bichat, 'those thousand secret operations of a living body.' It presides over all our internal chemico-vital actions, superintending and directing all blood-changing processes, and instigating all metamorphoses occurring in the intimate structure of the animal tissues. It is the system for the internal and individual wants of the organism, and its possession enables the being to sustain an independent and individual existence, carrying on, to a certain extent, all strictly organic actions, without the aid of external influences."

In exposition of the excito-secretory function, Dr. C. adduces the phenomena produced in the secretory surfaces within, by impressions made upon the external surface of the body. The sudden exposure of the surface to a cold atmosphere, or to a cold stream of water, it is well known, will increase the urinary secretion. This fact has been variously explained. It has been supposed by many that there exists an antagonism between the cutaneous surface, and the secretory tubules of the kidney, wherehy, when the exhalant function of the first is arrested the secretory function of the latter is increased. This doctrine of antagonism, Dr. C. regards as altogether unphilosophical, whether applied to the kidneys, the mucous surface of the intestines, or to any other portion of the animal organism.

"There is," he observes, "no such principle, in our humble opinion, as antagonism to be recognized in any of the operations of nature in her conduct of the vital processes, but a beautiful correlation and reciprocity are everywhere manifest in her economy. Nor yet can we justly account for these sequences upon the theory of revulsion, or a driving in of the blood upon the secretory organ. The real explanation is far more simple, and far more in accordance with the recognized principles of action in the nervous system. Under favorable circumstances, we irritate an excitor nerve, and we stimulate muscular contractions, evidencing the existence of the excito-motory function. Now, under the circumstances above related, the excitor or sensitive nerves, having received an appropriate stimulus, excite, through the medium of the spinal centres, the action of those ganglia and filaments dominating the secretory or-

gans in question; they control, as we have seen, their circulation; they preside over their secretions, and thus stimulated, they are excited to modify the circulation and the secretion. So far this is a normal act, the result of that ordained and wholesome correlation established between the two portions of the organism through these two systems of nerves, the sensory and the secretory; but should the excitation be unusually strong, amounting to what is popularly termed a 'shock,' or too prolonged, we find the secretory system acting unduly, and this action is then carried to an abnormal extent: the *dynamic* act so modifies the circulation, that secretion becomes aberrated, or even arrested, and, perhaps, a change in the condition of the tissue from altered nutrition may result. Dr. Marshall Hall thus remarks, in his recent article upon this subject: 'A partial keen current of air, falling on *any* susceptible portion of the skin, may induce inflammation in any susceptible internal organ. An extensive burn, or scald, is apt to induce pneumonia.'"

Dr. Campbell next examines some of the phenomena occurring in the region of the fifth pair of nerves, which send certain filaments to the sensitive parts about the eye, others to the teeth, and also sensitive branches to the head and face.

"Under certain circumstances," says Dr. C., "the sensitive conjunctival surface of the ocular globe is exposed to a sudden draft of air, or to some mechanical irritant. The first effect occurring from this exposure, is an immediate increase in the secretion of the lachrymal gland. This may continue, or it may be entirely arrested after continuing for a time. Secondly, the eye becomes perhaps dry, or it may become congested and secrete a puriform fluid, which, drying, closes the lids, or it may become entirely *bloodshotten* or *ecchymosed*, and in very favourable conditions, ulceration, and even opacity of the cornea may result from this taking cold. This is a condition of the parts, though arrived at much more gradually, which we find resulting from the experiments so repeatedly referred to in this paper, and our explanation of them is, that the sensitive fifth nerve becomes excited through the spinal centre, to the modifications in the circulation, secretion, and nutrition of the eyeball, which acts are under the immediate reign of the ganglionic system. We can observe the same character of phenomena in the secretory lining membrane of the nostril, and also the same exposure to cold may, through the fifth nerve, or other sensitive nerves, excite modified circulation in the fauces and pharynx through the secretory or mixed branches, which, together with the pharyngeal plexus, control the circulation of those mucous surfaces."

In a consideration of the relation of the teeth to the sensory or excito-secretory branches of the trifacial nerve, and through them to the spinal marrow, and thence to the entire system, is to be found, according to Dr. C., nearly all that is necessary for the full portrayal of the excito-secretory system. For, he remarks, in the phenomena which sometimes result from these relations, under particular circumstances, are to be found illustrations of almost every character and degree of modified secretion and nutrition.

In reference to those troublesome cutaneous eruptions so common in children at the period of teething, Dr. C. remarks, no rational and satisfactory explanation of their occurrence as concomitants of teething, had been presented before the enunciation of the doctrine of the excito-secretory function.

"A comprehension of that doctrine," he says, "affords to them a ready interpretation by referring them to the modified action of the secretory system controlling the capillary circulation of the cutaneous surface, which modification is excited through the dental filaments of the fifth pair, the spinal marrow, and that portion of the ganglionic system above referred to. In verification of this view of the influence of these connections, and also of the effect of the local irritation, we ask leave here to adduce an observation, which we are not aware has been recorded elsewhere. It is generally admitted, that at the termination of the period of dentition, that is, when the child has acquired all its teeth, the cutaneous eruption, of whatever nature it may have been, subsides, and the skin resumes its natural condition, the patient not again being liable to its return. This, according to our observation, is generally, but not invariably the case. We have observed certain instances in which the eruption had

subsided for several years, when on the advent of the *second* dentition, it came out with almost its former violence and inveteracy, not subsiding until the second period was entirely completed. So frequent has the return of the eruption been a subject of remark with us, that we now seldom encourage parents to expect permanent relief for their children, affected with these eruptions, until after the completion of the second dentition. Again, we find that children who have suffered severely during the period of dentition, are very liable to become affected with *dropsy;* this latter affection frequently presenting itself at the termination of the above cases. Since the announcement of the excito-secretory function of the nervous system, these cutaneous eruptions and dropsical affections which occur during dentition, in our opinion, need no extended and elaborate explanation."

"We are aware that the above phenomena, indicating embarrassed or aberrated action of the secretory system of nerves, might receive an explanation in the fact, that during this period several of the important emunctories of the system, as the liver and kidney, suffer an arrest, or at least, a modification of their eliminatory functions, but we will not contend here for the difference in the value of these two opinions; either one of them can only rationally explain the phenomena, by invoking the aid of the excito-secretory action originated by the irritation caused in the branches of the trifacial nerve, during the evolution of the teeth."

From the foregoing, our readers will derive some idea of the manner in which the excito-secretory function is applied by Dr. Campbell to the explanation of various morbid conditions of the organism. Other of his expositions—which are all ingenious and plausible, and bearing, apparently, the impress of truth—might be adduced. To establish fully the agency of the newly discovered function in the production of the foregoing, and various other abnormal phenomena, will demand, however, a more extended and cautious series of experiments and observations—the combined efforts of many labourers through many years. Dr. C. is nevertheless deserving of the thanks of the profession, for having directed attention to a subject, at once, so interesting and so important, as well as for the efforts he has already made in its elucidation and development.

The volume of essays before us is deserving of an attentive study and careful consideration on the part of every physician; should we have succeeded in directing to it the attention of such as may be inclined to investigate more fully the truths it enunciates, we shall be fully satisfied.

D. F. C.

ART. XXIV.—*The Enlarged Prostate; its Pathology and Treatment; with Observations on the Relation of this Complaint to Stone in the Bladder.* By HENRY THOMPSON, F. R. C. S., &c. Octavo: pp. 320. London, 1858.

The Prostate Gland and its Enlargement in Old Age. By DECIMUS HODGSON, M. D., Demonstrator of Anatomy in the University of Glasgow. London, 1856.

DISEASES of the urinary and reproductive organs have received at all times great attention, and the works treating of them are numerous. The body called the prostate gland, which occupies a very remarkable position, in regard both to the organs of urination and those of reproduction, has attracted much notice. Notwithstanding, however, the many works which treat of this body and its diseases, it must be admitted that there is room for a new one. Recent discoveries in general anatomy, the transactions of learned societies of the past few years, particularly those of the Royal Medico-Chirurgical Society and of the Pathological Society, of London, bear out the correctness of this assertion. In this Journal, in the April and October numbers of the past year, some account was given of several communications made by Mr. Thomp-

eon to the Medico-Chirurgical Society; one, concerning the anatomy and pathology of the prostate gland, the other, concerning the nature of certain concretions found therein, and their relation to prostatic calculi. The character of these communications, and the excellence of his work upon a somewhat analogous subject, stricture of the urethra, would lead us to expect much that is valuable in his treatise on the enlarged prostate.

The points to which Mr. Thompson desires especially to request the attention of the scientific inquirer, are briefly stated, in the preface, to be as follows:—

"The assignment of the 'third' or 'middle' lobe, as a separate anatomical portion of the prostate, to the abnormal history of the organ; discussed in the first chapter.

"The analogy between the enlargements and tumours of the prostate and those of the uterus; discussed in the second chapter.

"An examination of the alleged causes of enlargement of the prostate, resulting in new views of this subject; in the third chapter.

"The effects of enlarged prostate in relation to the functions of nutrition; considered in the fifth chapter.

"The researches in relation to malignant and tubercular disease of the prostate; in the ninth and tenth chapters (tenth and eleventh).

"The consideration of 'the bar at the neck of the bladder;' in chapter the twelfth."

The other chapters—there are fourteen altogether in Mr. Thompson's work—treat of the symptoms of enlarged prostate; the diagnosis of prostatic and other obstructions at the neck of the bladder; the treatment of senile enlargement; the treatment of retention of urine from enlarged prostate; enlargement of the prostate from inflammation; prostatic concretions and calculi, and the relation between enlarged prostate and stone in the bladder. It must not be supposed, from having directed particularly the attention of the scientific inquirer to certain portions of his work, that others have been neglected. The subjects, the list of which we have given, as occupying the remaining chapters, have been treated at length; more fully, probably, some of them, as the diagnosis and treatment of enlargement, than in any preceding treatise.

Although physiology is something more than "animated anatomy," and a precise knowledge of structure does not always enable us to decide as to function, still there is a relation between structure and function which should not be overlooked. Experiments skilfully conducted have thrown light upon a few obscure phenomena of the animal organism, but by far the greater portion of the recent progress in physiology has been effected by the advance of our knowledge of anatomy. And when we speak of physiology, pathology also is meant; for all that we know with satisfaction, in pathology, has a physiological basis.

Investigations in minute anatomy, made in late years with so much zeal, have shown us that the body called the prostate gland has no claims to be called "gland" at all; that is, in the usual sense of that term. It should be considered as only an advanced portion of the circular muscular coat of the bladder, having the power of acting independently of the vesical fibres, as is shown in the propulsion of the seminal fluid. A number of small urethral glands are contained in this muscular body, each of which has a separate duct opening into the gutter at the side of the verumontanum. It is the liquid from these glands that gives to the sperm its white colour; it is white, creamy, not at all tenacious, and is mixed with the other five liquids forming the sperm, at the moment of ejaculation.

The views of Mr. Thompson in regard to the normal and pathological anatomy of the prostate are contained in the paper we have already referred to, as published in this Journal, for April, 1857. We have the strongest reasons to believe in their correctness. In the preparation of that paper he made a dissection of sixty specimens of the prostate, removed himself from the dead body, and in its illustration fifty of these specimens, preserved in spirits, were exhibited at the Medical and Chirurgical Society. The existence of a "third lobe," as a fact in normal anatomy, has never been admitted by European anatomists. Cruveilhier says: "In the normal condition, the prostate does not

project into the canal of tbe nrethra; but it is not rare to see rising np from the inferior part of the canal of the nrethra, at the level of the base of the prostate a moro or lese projecting tubercle, which forms an obturator more or less compiete at the entrance of the canal of the urethra; this is the tubercle designated by Lieutaud under tbe name of *luette vésicale;* by Everard Home, under the name of *development of the middle lobe of the prostate.* But, on one side, this tubercle belongs to a pathological condition; nnd, on the other, there is no middle lobe, unless it be desired to give this name to the slightly furrowed and consequently lese thick portion, that unites the two lateral halves of the prostate." (*Traité d'Anat. Descrip.*, vol. iii. p. 631, Paris, 1852.) In England and in this country, down to the latest treatises on the subject, a middle lobe is recognized, and any one who would take tbe trouble to conault the original paper of Home, in the *Philosophical Transactions*, 1806, would be astonished at the insufficiency of the grounds. A "third lobe" was proclaimed after five examinatione of the organ by dissection. In these five dissections, the nuthor saye, "the appearance was not exactly the same in any two of them." In one of them, "there was no apparent glandular substance" at all in the spot indicated.

We are strongly inclined to agree likewise with Mr. Thompson in regard to the incorrectness of the general opinion as to the freqnency of enlargement of the prostate in old age. His opinion is founded upon very numerous dissections, and moreover he finds *the absence of anything abnormal* which it is very difficult and raro to find, and when found is generally to be believed true. Ignorant persone are those most apt to find the most pathological conditions, and thie ie particularly true of enlargements.

Mr. Thompson examined the prostate in the bodies of fifty elderly people, as they consecutively appeared in the dead-house of a large metropolitan institution, no kind of selection being made. Of the fifty prostates examined, fourteen were affected with unnatural developments in one form or another. Of these, six exhibited numerous iealated tumours in the substance of the lateral lobes. The others show outgrowthe, single, hinary, or multiple, epringing from the posterior median portion. Theee iealated tumours, as those of the uterus, called fibroue tumours, are formed of the eame anatomical elements as the organ in which they are situated; organic muscnlar fibre. It is an interesting circumstance that the prostate—male homologue of the uterns—should exhibit such etriking analogies in pathology with the latter organ.

From the facts he hae advanced, Mr. Thompson believes that it may be regarded ae established, that enlargement of the prostate, "so far from being a charge invariably, or even usually preeent in old age, is an exceptional condition. And it may he further regarded as highly probahle that a slight tendency thereto, almost, if not quite unrecognizable during life, may occur in ahout one out of three individuals after fifty years, and tbat a marked enlargement may be rarely met with in one ont of eight—rarely, however, before sixty years of age"—(p. 67.)

The three chapters of Mr. Thompeon'e work, the 4th, 5th, and 6th, treating respectively of the symptoms of enlarged prostate, of the effects of its enlargement upon mictnrition, and of the diagnosis of prostatic and otber obstructions at the neck of the bladder, are most excellent. We notice with pleasure that he refuses to use the word *incontinence*, in the sense in which it ie generally nsed, that ie, as indicating a condition which, eo far from being one in which the bladder *cannot retain*, ie one in which it *retains too much*. Thie misapplication of the term has been productive of fatal errore in practice. In his work on stricture, for this reason, the condition described was designated as "retention with incontinence;" in thie one he employs the word "overflow," a ehorter and preferable term.

In the great majority of cases in which habitnal retention of nrine with overflow of a surplue portion exists, he doee not hesitate to affirm, that the cause is a physical one; in other words, "that there is *an organic obstruction at some part of the urethra*, situated either nt its commencement in the neck of the bladder, when it is usually constituted hy enlarged prostate; or in a portion of the canal anterior thereto, when it nsually takes the form of permanent or organic

stricture"—(p. 84.) He does not enter into any discussion of the subject, preferring to regard it as a question of fact, rather than as a theme for abstract reasoning. "Experience alone has led him to reject the impalpable cause, and to appreciate the material one, and to an extent sufficient to warrant him in referring to the fact alone for corroboration of the assertion made above."

The only exceptional cases, he allows, are those in which there is a cerebral or spinal lesion of some kind, which paralyzes more or less completely the nerve functions of motion, voluntary and involuntary, of sensation, or of sensation and motion combined, of the whole body below the situation of the injury, and those cases in which, after voluntary retention of urine, there is overdistension and atony of the bladder. In these latter cases, to which the term of paralysis has been applied, there is no evidence whatever that the lesion consists in any loss or impairment of the *nervous force* transmitted to the viscus; the muscular expelling apparatus of the bladder is overstretched, and unable to perform contraction in a normal manner for a certain time. Paralysis of the bladder—that is, a condition of things in which its nervous supply is either impaired or destroyed—Mr. Thompson does not believe to ever exist. "There is no evidence of the existence of true paralysis—that is, a removal or impairment of nervous influence *limited* to the *bladder*"—(p. 104.)

The paralysis of a muscle, after the section of a particular nerve, is easily understood; but it is very difficult to understand a partial paralysis from a general cause. Nevertheless, such cases are witnessed; every one, for instance, has seen paralysis of the radial nerve, from the effects of lead upon the system; and also, in hysterical women, paralysis of the third pair. There is no reason, therefore, for not admitting partial paralysis, limited to the bladder. Mr. Thompson denies it because he has never seen it; but other persons, well worthy of credit, have reported cases of the kind.

The chapter (6th) on the treatment of senile enlargement of the prostate occupies sixty pages. We think we may safely assert that no preceding author has treated the subject so carefully and so satisfactorily. The subject is divided into three distinct divisions, and they are considered separately, as follows:—

"1. Treatment for the purpose of obviating the results of obstruction caused by enlarged prostate.

"2. The general, or constitutional treatment and management of patients with enlarged prostate.

"3. Treatment directed against the enlargement itself."

This complaint is one generally admitted to be completely intractable, and the surgeon almost invariably limits himself to palliating its most distressing symptoms, and to retarding its progress. Mr. Thompson, however, does not doubt that "the day will come when the complete control of this evil will be in our power, adding another to the already numerous and splendid triumphs of scientific medicine;" and urges with confidence and hope the employment of treatment against it. Though strongly advocating treatment directed against the enlargement itself there is also a most careful description of those means which past experience and skill have placed in our power for prolonging the life and insuring the comfort of the patient.

There exists a certain analogy, as has been already said, between prostatic and uterine enlargement. The influence of iodine and of its congener bromine over these affections of the uterus being testified to by many men of the highest celebrity, it is only a legitimate inference to affirm that there may be good grounds for believing that these remedies may be similarly effectual in those of the prostate. Some years ago, Mr. Stafford, in an "Essay on the Treatment of some Affections of the Prostate Gland" (London, 1840), called the attention of the profession to the use of iodine and its preparations for the removal of prostatic enlargement. His plan consisted in administering iodine internally by suppositories in the rectum, occasionally by the mouth, and in applying it to the prostatic portion of the urethra in the form of a weak ointment. Mr. Stafford affirms to have been successful in a large number of cases, in causing the disappearance of the enlargement. For some reason or other, although very partial to the employment of iodine, and openly declaring his

belief in the efficiency of treatment, Mr. Thompson speaks of Mr. Stafford and of his plan of treatment with great harshness. After doubting his powers of diagnosis nnd his accuracy in reporting, he adds: "All tbat can be said further is, that the success was marvellous, and that other surgeons have been less fortunate, notwithstanding that Mr. Stafford's experience certainly induced numerous trials of his remedies by others."

The plan recommended by Mr. Thompson himself is the use of the water from the highly charged iodine and bromine springs of *Kreuznach* in Rhenish Germany. Knowing that uterine enlargements were often much benefited by it, he visited the springs for the purpose of inquiring as to its influence upon chronic enlargement of the prostate, and, from the report of the physician, was satisfied that valuable results were obtained from its employment. This water, or ordinary water to which the bittern or mother-lye of the Kreuznach springs has been added, he uses as a bath, and also as an enema. No results are given of the effects of this plan of treatment. We doubt whether many surgeons will make use of it in preference to the treatment recommended by Mr. Stafford, and which is spoken of by Mr. Thompson with such disrespect.

Besides the medical part of the special treatment to be directed against the enlargement, there is also the mechanical. The effect of compression in retarding the progress of morbid growths and enlargements has long been recognized, and is constantly employed with success. The attempt has, therefore, been made to effect the reduction of the enlarged prostate by the same agency. Physick, in this country, attempted to accomplish this object by distending with fluid a small bag of gold-beater's skin, previously rolled up and introduced on the end of a catheter, into the bladder; and by then attempting to withdraw the dilated sac through or into the vesical orifice. Mr. Thompson says: "Provided that, without difficulty or danger to the patient, an efficient degree of compression could be applied with ease and certainty to the prostate and neck of the bladder, I think it reasonable to suppose that considerable benefit might accrue from its application." The instrument he recommends is composed of a catheter, an India-rubber tube fitting over the catheter, and a syringe. When the tube is drawn over the catheter and fastened by a thread of silk close to the handle, on applying the syringe previously filled with water, and making pressure, the fluid passes through the eyes of the catheter, and the lower three inches of the tube become very gradually distended, equally in every direction. The manner of employing the instrument is so simple, that it scarcely requires explanation.

Operations for the excision or the crushing of a protruding portion of the prostate, Mr. Thompson mentions only for the purpose of expressing his disapproval of them. Division of the obstructing portion has been performed, and it was advocated and practised by Mr. Guthrie; this operation, however, is not discussed here, but it is in the twelfth chapter, one devoted to the consideration of "the bar at the neck of the bladder."

The different operations for puncturing the bladder, which, though very rarely, is, nevertheless, sometimes necessary, are judiciously examined. The one, by which an opening is made through the symphysis pubis, a very interesting case of which was reported in this journal for April, 1854, by Dr. Leasure, of New Castle, is thus judged: "The experience of the operation of puncture through the pubic symphysis is not extended enough at present to permit of a comparison being made in regard to its results, with other modes; but that it is sufficient, coupled with the apparent advantages derived from anatomical considerations, to recommend the operation to the test of practice, in order that its merits may be duly ascertained." When fluctuation can be felt with the finger in the rectum, behind the prostate, this is the easiest and safest mode of giving exit to the urine. The great objection to this operation by the rectum is said by Dr. Gross (*Practical Treatise on the Diseases, Injuries, and Malformations of the Urinary Bladder, &c.*, 2d edit., Philad. 1855, p. 389), to be the formation of a vesico-rectal fistula. We are inclined to think, however, that this is incorrect; Mr. Cock, of Guy's Hospital, who has performed this operation twenty-four times, and seen it done at least twelve times more, never saw

a fistula left. In fact, there would appear to be difficulty in preventing the opening from closing immediately.[1]

The three following chapters of this work are upon enlargement of the prostate from inflammation; on malignant disease of the prostate, and on tubercular disease and cysts of the prostate. This part of Mr. Thompson's work is not so satisfactory as the rest. Several things of importance have been left unmentioned; for instance, there is nothing said of the necessity of introducing a catheter after the inflammation has terminated in abscess, which has opened into the urethra. Dr. Hodgson, in his work, insists upon the necessity of introducing the instrument, but he advises the use of a small instrument retained in the bladder by the usual means, for "the urine then flows through the instrument without entering the cavity of the abscess, while the small size of the catheter permits the matter to escape by its side." Whenever a catheter is retained in the bladder, at the expiration of twelve hours, or thereabouts, the urine flows away by the side of the instrument, which acts as a sort of conducting tube. It is, therefore, better for the surgeon to introduce the instrument and to draw off the water as often as may be required.

The twelfth chapter is devoted to "the bar at the neck of the bladder;" an affection so closely related to enlarged prostate, by identity of anatomical situation, and of the symptoms resulting, that it is impossible to treat of one without also considering the other. In the majority of cases in which there exists an organic obstruction, having more or less the form of a ridge or barrier, situated at the posterior border of the neck of the bladder, this unnatural elevation is believed by Mr. Thompson to be constituted by an outgrowth arising from the posterior median portion of the prostate. When an obstruction does exist, without the prostate being affected, he believes it to be most commonly owing to an undue elevation of the uvula, associated with hypertrophy of the muscular elements of the bladder, originating in long-continued irritability of the viscus, and generally occasioned by stricture of the urethra or calculus of the bladder. He believes also that a fold of mucous membrane and submucous tissue may form a barrier, though this very rarely happens.

The operations which have been performed and recommended by Guthrie, Leroy d'Etiolles, and particularly by Mercier, for the purpose of practising incisions in this barrier, are described and discussed. Before resorting to them Mr. Thompson prefers to be fully assured that dilatation is unequal to affording relief; for it is a method which has yet to be fairly and effectively employed in these cases.

His views upon prostatic concretions and calculi, the subject of the thirteenth chapter, may be sufficiently judged from the account already given of them in this journal for October, 1857.

In the fourteenth chapter is an excellent account of the relation between enlarged prostate and stone in the bladder. It is a chapter, however, which struck us as being rather out of place, in a work of this kind, and as belonging to one on lithotrity.

Mr. Thompson's work, we feel assured, will be well received by surgeons. The whole of it is valuable; and the first eight chapters are eminently so.

In Dr. Hodgson's treatise, the descriptive anatomy of the prostate, and its general anatomical relations are given in minute detail. They are also correctly represented by plates attached to the volume, among which are a number displaying their pathological alterations. This book loses somewhat of its value by a lack of method in the arrangement of the subjects; in which, we would add, Mr. Thompson's excels. W. F. A.

[1] See his paper in Medico-Chirurgical Transactions, vol. xxxv.

ART. XXV.—*A Practical Treatise on the Diseases of Children.* By J. FORSYTH MEIGS, M. D., Fellow of the College of Physicians, of Philadelphia, etc. etc. Third edition. Carefully revised. 8vo. pp. 724. Philadelphia: Lindsay & Blakiston, 1858.

OF the first two editions of this treatise we expressed, at the time of their appearance, a highly favourable estimate. In the edition before us the work has undergone a very careful revision, while such additions have been made to it as the author's more enlarged experience, and the contributions of contemporary observers, both at home and abroad, have furnished. The treatise will, in consequence, be found a very excellent and faithful guide to the pathology and treatment of the more prominent of the diseases of childhood. Unfortunately, the author has not yet found the opportunity to complete the work, by adding an account of those diseases which were not included in the preceding editions. To the practitioner this is a circumstance of minor importance; but to the student, who consults the work as a complete treatise on the diseases of children, it will be a source of some annoyance to find that he must refer to other works for information in reference to affections peculiar to the period of childhood, on which Dr. Meigs has neglected to treat. So well has the author accomplished his task, in reference to the diseases embraced in this third edition of the treatise, that we most fervently desire that the leisure necessary to pen the chapters still wanting to complete the work in accordance with its title, may be speedily furnished him. D. F. C.

ART. XXVI.—*Journal de la Physiologie de l'Homme et des Animaux.* Publié sous la Direction du Docteur E. BROWN-SÉQUARD. Tome Premier, Janvier, 1858. Paris, J. B. Bailliere et Fils. London and New York, H. Bailliere.

THE appearance of a journal devoted especially to physiology, and under the management of one so capable of successfully conducting it as Dr. Brown-Séquard, is an event which all who feel the stimulus engendered by progress in rational medicine, must regard with no ordinary feelings of interest. In whatever light we view physiology, we cannot fail to perceive that on the facts which constitute that science, reposes the whole structure of the healing art, and that with the further development of the former, we have the most ample assurances of continued advancement in the scientific appreciation and treatment of disease.

The success of a journal restricted to the consideration of but one branch of medical science, may be doubted by some, but when we reflect that though cultivated assiduously for centuries, by learned men of all civilized nations, physiology is nevertheless yet in its infancy, we see no reason to anticipate failure. For to whatever point of the science we direct our attention, we find so vast a field for investigation, that one not actuated by the high motive of labouring for the good of his species, might well be dismayed at its contemplation, and falteringly turn aside from a work which requires such unremitting sacrifices for the establishment of the most simple fact.

The perseverance and ability of the editor of the *Journal de la Physiologie*, are ample guaranties that the periodical he has undertaken to conduct, will accomplish much for scientific medicine, and if future numbers reach the standard of excellence attained by the number before us, it will, indeed, be a valuable addition to medical periodical literature.

In order that our readers may form an idea of the subjects treated of, we subjoin a list of the original memoirs:—

1. On the Laws which govern the Dynamical Phenomena of the Animal Economy. By M. Brown-Séquard.

2. Memoir on the Temperature of the Palmiped Birds of the North of Europs. By M. Ch. Martins.
3. Note on the Low Temperature of certain Long-Winged Palmipides. By M. Brown-Séquard.
4. Memoir on some Points in the Anatomy and Physiology of the Mucous Membrane and Epithelium of the Uterus during Pregnancy. By M. Ch. Robin.
5. Researches in regard to the Effect produced on the Circulation by the prolonged application of Cold Water to the Surface of the Human Body. By Dr. H. Bence Jones and M. W. H. Dickinson.
6. On certain Improvements in the means of establishing Artificial Gastric Fistulas. By M. Blondlot.
7. Experimental Researches on the Physiological Properties and Actions of the Red and Black Blood. By M. Brown-Séquard.
8. Experiments with the Stuffs used for Military Clothing, considered as Protective Agents against Heat and Cold. By Dr. Coulier.
9. New Researches on the Physiology of the Spinal Marrow. By M. Brown-Séquard.
10. Experiments on Digestion. By Dr. F. G. Smith (reprint).
11. Experiments relative to the Transformation of Starch into Glucose in the Stomach. By Drs. F. G. Smith and E. Brown-Séquard.
12. New Researches relative to the Importance of the Functions of the Supra-renal Capsules. By M. Brown-Séquard.
13. On the Modifications effected in the Globules of the Blood of Mammals, when injected into the Vessels of Birds, and in the Globules of the Blood of Birds, when introduced into the Vessels of Mammals. By M. Brown-Séquard.

We are unable to notice in detail all the above memoirs, but this is of the less consequence, as the results of several of them have been already published through other channels. Even these, however, contain new facts, and are well worthy of attentive perusal.

The memoir of M. Martins, and the note on the same subject by M. Brown-Séquard, are particularly worthy of consideration, as containing some interesting and accurate results relative to the temperature of the palmiped birds of the North of Europe. From these researches it is seen that some of the long-winged members of the order, especially the fulmar petrel (*Procellaria Glacialis*), possess a temperature markedly lower than would be pre-supposed from a knowledge of their habits.

The paper of M. Coulier, relative to the protecting power against heat and cold possessed by the cloths used for the manufacture of military clothing, though interesting, is not so complete and satisfactory as it should be for the thorough elucidation of the subject.

M. Coulier seems to be unaware of how much has hitherto been done by others in this matter, and that, consequently, he has been anticipated in the more important of his conclusions. The subject of his memoir is of so great interest in a hygienic point of view, that we hope our readers will pardon us, if before stating his results, we recall to mind some of the facts in regard to it, which may be considered as definitely established.

In 1792, Count Rumford instituted a series of experiments relative to the influence of colour over the amount of solar heat absorbed in a given time. He found that, *cæteris paribus*, black was pre-eminent as absorbing more heat than any other colour.

Franklin's researches followed, and were more complete and decisive than Rumford's. This philosopher exposed cloths of different colours, laid on snow, to the heat of the sun, and observed the different relative depths to which they sank. From his experiments, he deduced the conclusion "that black clothes are not so fit to wear in a hot sunny climate as white ones, because in such clothes, the body is more heated by the sun when we walk abroad, and are at the same time heated by the exercise, which double heat is apt to bring on putrid dangerous fevers." He, therefore, thinks that soldiers and sailors in tropical climates should wear white uniforms, and that white hats should be generally worn in summer.

In 1799, Sir Humphrey Davy took up the subject; his experiments were per-

formed with pieces of copper of various colours, on the under surface of which cerate was spread. His results accorded exactly with those of Franklin.

Stark, in a paper read before the Royal Society in 1853, and published in the *Philosophical Transactions* for that year, contributes a good deal of valuable information on the subject. The results which he obtained agree in a striking manner with those of Franklin and Davy, as seen from the following table, in which the several colours experimented with are arranged in the order of their absorptive power:—

Franklin.	Davy.	Stark.	
		Coloured Wool.	Coloured bulb of Therm.
Black	Black	Black	Black
Deep Blue	Blue	—	Dark Blue
Light Blue	—	—	Brown
Green	Green	Dark Green	Green
Purple	—	—	—
Red	Red	Scarlet	Orange Red
Yellow	Yellow	—	Yellow
White	White	White	White.

In the *Journal of the Franklin Institute* for November, 1833, Prof. A. D. Bache, of this city, gives the details of a series of experiments which he instituted on the same point. Prof. Bache concludes that the colour of a substance only affects its absorptive power for *luminous* heat, and that if a person keeps in the shade, it is immaterial what is the colour of his clothing.

In relation to the influence of colour over the absorbent power of a substance for moisture, Stark, in the memoir above referred to, furnishes some important results, to which we may briefly call attention.

On the 16th of January, 1833, he exposed during a foggy night 10 grains of black wool, 10 of scarlet wool, and the same quantity of white wool, to the action of the atmosphere. When weighed in the morning, the black wool had gained 32 grains, the scarlet wool 25 grains, and the white wool 20 grains, deposited as frost.

At a time when there was less moisture in the atmosphere, he repeated the experiment. When the wool was weighed, the black had gained 10 grains; dark green 9.5; scarlet 6; and the white 5 grains. It is thus seen, that a direct relation exists between the capacity of a colour for heat and for moisture.

We come now to M. Coulier's conclusions, which are based upon a number of experiments, evidently performed with great care, but which, with the exception of the second, are by no means original. His deductions are as follows:—

1. The colour of the clothing is without perceptible influence over the loss of animal heat.

2. All cloths are capable of absorbing a certain amount of *hygrometric water* [so called on account of its only being appreciated by the balance, or by the lengthening of the textile fibres]; this quantity is greatest for wool, next greatest for hemp, and least for cotton.

3. This absorption is made without the immediate loss of caloric by the human body.

4. The colour of a cloth exercises a great influence over the absorption of solar heat, but whatever may be the character of the clothing, if its exterior surface be suitably modified, all the advantages which white stuffs possess when subjected to the heat of the sun are obtained.

The modification referred to in the fourth conclusion, consists in wearing a white frock over the coloured uniform.

In this country, where our army has so much frontier service to perform, in which the troops in summer are subjected all day on the plains to the heat of an almost tropical sun, and in winter are exposed to snows, rains, and a temperature frequently several degrees below the zero of Fahrenheit, the subject of clothing for the soldier has not attracted that attention from the authorities which it deserves. In winter or summer, in Texas or Maine, in Florida or on the Pacific coast, the clothing of our soldiers is the same, the only difference

being, that when occasion requires it, they are allowed to wear their overcoats. The colours (dark blue for coats and light blue for trousers), though very good for winter use, are almost the very worst which could be worn for summer service.

Besides the original contributions, there is in this number of the *Journal de la Physiologie* an excellent *résumé* of the recent progress of physiology, in which abstracts of several important memoirs are given.

In conclusion, as we have said before, we see no reason why the attempt to establish a physiological journal in France should fail. In Germany several have been in successful existence for a number of years, and are among the most valuable medical periodicals published. We are sure that, with the acknowledged ability of the editor, and the aid of the numerous eminent physiologists, who have arisen in France, of late years, the *Journal de la Physiologie* will assume a permanent and exalted position as an exponent of progressive physiological science. W. A. H.

ART. XXVII.—*Comptes Rendus des Séances et Mémoires de la Société de Biologie, pendant l'année* 1856. Octavo, pp. 748. Paris, 1857.

Minutes of the Meetings and Papers read before the Society of Biology in the year 1856.

THIS, which is the eighth volume of the *Transactions* of the Biological Society of Paris, is not inferior in interest to those which have preceded it.

Founded in 1849 by the most talented and laborious young men of the French capital, and having as perpetual president M. Rayer, a man who is celebrated not only as a pathologist, but also for his acquirements in natural science, and his generous aid to those who are zealous in its cultivation, this society has, since that time, been yearly giving evidence of its valuable and well-directed labours.

Instituted for the study of the science of organized beings in the normal and the pathological condition, the subject of study embraced by this society is vast. Living beings are not withdrawn from the action of the general forces of nature, and all the phenomena, whether mechanical, physical, or chemical, which occur in inorganized bodies, are observed in them. They are, moreover, subjected to the influence of life, also, a force peculiar to them, and which gives rise in addition to phenomena entirely special. This force—life—co-ordinates the chemical and physical forces so as to produce phenomena seen only in organized bodies, but it is not substituted for these forces, nor does it arrest their results.

The society is composed of titular or active, honorary, associated, and corresponding members. The number of the first is fixed at forty, of the second at fifteen, of the third at twenty, and of the last at eighty, all of the lists being complete. In the whole number, there is not a name which is not well known as that of a distinguished cultivator of science. Among the original members, those by whom the society was founded, and who, to this day, have continued its most active members, are Claude Bernard, Charles Robin, Brown-Séquard, Follin, Lehert, Cazenu, Giraldès, Hirchfeld, Verdeil, and Verneuil.[1]

The comptes-rendus, or minutes, of the meetings of the society, published every year, in one volume, together with the memoirs, form a mass of valuable and interesting information. Among these memoirs, or original papers, are those of Bernard on the pancreatic juice and its part in the phenomena of digestion, on the origin of sugar in the animal economy, on the different sali-

[1] The members of the Biological Society hold their meetings in an ancient building, which was formerly a portion of the Convent of the Cordeliers. This building, during the great revolution, was used for the meetings of a society of the most violent of the Jacobins; so that the society of life has taken the place of the society of death.

vary fluids, nnd on the great sympnthetic nerve, nnd especially npon the infinenco exercised by the section of this nerve upon nnimal heat; those of Lebert, on the locnl nnd general nature of tumonrs, nnd upon inflammation; those of Robin, on tl.e development of the snhstance nnd tbe tissue of bones, on erectile tumours, on colloid and epithelial tumnurs, and upon hypertrophy of the anatomical elements nnd those of the tissnes; thnse of Sappey, npon the glnnds of the eyelids nnd of the pituitary membrane, on the anatomy of the eye, and on the structure of the tonsils nnd glands nt the hase of tho tongne; the paper of Brown-Séquard, containing his experiments upon the nervous system; nnd that of Davaine, upon hydatids nnd their development. These nre some of the papers which are of most interest to a medical mnn. The chemist, the biologist, nnd the zoologist, will find others of grenter interest, probably, in the contributions of Rnyer, of Montagne, of Mayer of Genevn, Huette, Guhler, and Davnine.

That tbe zenl of tbo members of this society does not diminish is evidenced by the fnct that, while the first annual volume of their proceedings contains 362 pages, nnd the second 461, the present volume contnins 748 pages. The nature of their lnbours may be judged from the tnble of the original papers, which is as follows:—

The physiological and therapentical action of the chlorate of potasb, hy M. Isambert.

Bronzed coloration of the skin, coinciding, in n phthisical patient, with fatty degeneration of the two supra-renal capsnles, by M. Second Féréol.

An nffection characterized hy palpitations of the heart nnd nrteries, tumefaction of the thyroid gland, and double ex-ophtbalmia, by M. Charcot.

The mensuration of the facial nngle, facial goniometers, and a new facial goniometer invented by the nuthor, by M. H. Jacquart.

Leucocythemia, by MM. Isnmbert and Robin.

Unilocular cyst of the ovary, by M. A. Laboulhène.

The existence of a co-ordinating principle of writing, nnd its relations with the co-ordinating principle of speech, hy M. Marcé.

Spontaneous amputation of the neck and trnnk, by tbe umbilical cord, in the fœtus, by M. Hillairet.

Physiological study of tho venom of tbe toad, tbe triton, and the salamander, by M. Vulpian.

Hemorrhages of the ovarian vesicles, by M. Robin.

Natural history of an insect of the order of coleopteri, wbich produces a gall upon tho draba verna, by M. A. Laboubène.

A gall of the tamarix brachystylis, by M. Amblard.

Proof that various tumours, called sarcoceles of tho testicle, bave their seat in the epididymis, by M. Robin.

Tho charucteristic cavities of bones, by M. Robin.

The anguillulus of smutty wheat, considered in regard to its natural history and to agriculture, by M. Davaine.

The aortic nnrrowing at the place of junction of the ductus arteriosus, by M. Dumontpallier.

The pathological anatomy of the elepbantiasis of the Arabs, by M. Vulpian.

Studies upon monorchidia and cryptorchidia in man, by M. Godnrd.

W. F. A.

Art. XXVIII.—*Archives of Medicine. A Record of Practical Observations and Anatomical and Chemical Researches connected with the Investigation and Treatment of Disease.* Edited by Lionel S. Beale, M.B., F.R.S., &c. &c. London: John Churchill. 1857. No. I.

Dr. Beale, under whose nnspices the *Archives of Medicine* makes its appearance, is pre-eminently a practical man, nnd from his knowledge of physiology, pathology, chemistry, and microscopy, every wny fitted for the undertaking in

which he has engaged, and to which he seems so earnestly to have devoted himself.

In the advertisement prefixed to the first number, Dr. Beale enumerates the following as the subjects upon which he expects to receive contributions:—

1. Practical clinical observations.
2. Original researches in physiology and pathology.
3. Results of the chemical and microscopical examination of the solid organs, and secretions in a healthy and morbid state.
4. Descriptions of different processes employed for demonstrating various structures, and for carrying out scientific inquiries bearing upon medicine.
5. Condensed reports of the researches of observers published elsewhere.

If the anticipations of Dr. Beale are realized, he cannot fail to present a journal capable of conducing in a high degree to the advancement of scientific medicine.

The papers contained in the present number are all of them of a highly practical character, and, with the exception of two, contributed by Dr. Beale himself. Among these is a very interesting one "On the Manner of preparing Injected Preparations of the Liver," which we commend to those engaged in micro-physiological investigations. The papers "On Microscopical Drawings;" "On the Presence of Cholesterine in the Urine;" "On Chylous Urine," and the two articles "On the Anatomy and Pathology of the Liver," are also worthy of attentive perusal.

Dr. Moritz von Bose contributes a paper, to be continued in the ensuing number, "On the Estimation of Urea, Chlorides, Sulphates, Phosphates, and Sugar in Urine volumetrically." This, we believe, is the first attempt to place before the profession in Great Britain a connected and detailed description of those volumetric processes for the analysis of the urine which have for the last few years been so successfully employed in Germany. For ease and certainty in manipulation these methods are unsurpassed; and we know of nothing better calculated to insure accuracy in results, and, at the same time, by facilitating physiological researches, to increase the number of labourers in the field, than the wide-spread diffusion of such papers as the one now under notice.

An article follows, "On the Chemical and Microscopical Examination of Morbid Specimens," in which several interesting cases are cited.

The number, besides several woodcuts, is illustrated with ten octavo pages of lithographs, which, if not executed in the highest style of the art, are amply sufficient for the purpose of correct representation, and add very much to the value of the papers to which they refer.

In the enterprise which he has undertaken, Dr. Beale will, we hope, be sustained by the enlightened members of the profession on both sides of the Atlantic.

W. A. H.

Art. XXIX.—*A Theoretical and Practical Treatise on Midwifery, including the Diseases of Pregnancy and Parturition, and the Attentions required by the Child from Birth to the Period of Weaning.* By P. Cazeaux, Member of the Imperial Academy of Medicine, Adjunct Professor in the Faculty of Medicine of Paris, etc. etc. Second American, translated from the Fifth French edition. By Wm. R. Bullock, M. D. With one hundred and forty illustrations. 8vo. pp. 992. Philadelphia, 1857. Lindsay and Blakiston.

The Wise Man has said that, "of the making of many books there is no end." Most truly is it, that of the publication of many treatises on the theory and practice of midwifery there is no end. We have already so many admirable works of this kind, from any one of which all the necessary knowledge, so far as that knowledge can be communicated by books, may be acquired, that the student and young practitioner can be at no possible loss in his selection of an obstetrical guide. He will certainly not be disappointed, and can scarcely be led astray in any important particular, whether in relation to doctrine or prac-

tical details, should be make choice of the admirable treatise of Meigs, or of the equally excellent one of Ramshotham, or of Rigby, Lee, Churchill, or Cazeaux. The latter work, in the edition before us, is one of unquestionable excellence. Every portion of it has undergone a thorough revision, and no little modification; while copious and important additions have been made to nearly every part of it. The author has selected from every authoritative source, whatever bears the impress of truth, and has been sanctioned by the concurrent experience of the masters of the obstetric art. Out of these materials he has formed a body of doctrine and of sound practical precepts which he communicates, illustrates, and enforces with great directness and perspicuity. The work is, in fact, precisely what it imports to be, a theoretical and practical treatise on midwifery, based upon the labors of all antecedent writers in that department of medicine, tested and confirmed by the author's own observations and experience.

It is well and beautifully illustrated by numerous wood and lithographic engravings, and in typographical execution, will bear a favourable comparison with other works of the same class.

The translation appears to us, so far as we have compared it with the original, to be faithfully and correctly executed.

D. F. C.

ART. XXX.—*A Manual of Medical Diagnosis: being an Analysis of the Signs and Symptoms of Disease.* By A. W. BARCLAY, M. D., Cantab. et Edin., Fellow of the Royal College of Physicians; Assistant Physician to St. George's Hospital, etc. etc. Philadelphia: Blanchard & Lea, 1858. 8vo. pp. 423.

THE design of this work is to aid the student of medicine in the prosecution of his clinical studies. If it be well adapted to this end, its usefulness will be by no means restricted to the period of medical pupilage, for every practitioner, great as may be his skill in diagnosis, based upon an experience ever so extended, must often feel doubt and difficulty, at the bedside, in the discrimination of diseases. The importance of diagnosis, as a province of medical science and art, can hardly be over-estimated. It does not, it is true, constitute the whole of medical science and art. The practice of medicine involves something more. But it is the keystone of the arch. Without it, therapeutics are aimless, or as likely to be directed for evil as for good. All medical experience, whether it be confined to the individual, or contributed to the public stock, is either worthless or pernicious, unless based on a correct discrimination of diseases. In view of the importance of the subject and the paucity of treatises devoted to it specially, it was quite unnecessary for the author to apologize for his undertaking.

After introductory remarks, the consideration of the method of diagnosis, etc., the author treats of the objective and subjective phenomena referable to the general condition of the patient; febrile diseases; rheumatism and gout; poisons and entozoa; diseases of uncertain or variable seat; chronic blood ailments; depraved constitutional states, and quasi-nervous conditions. These occupy about one-third of the volume. The remainder is devoted to the diagnostic phenomena pertaining to particular anatomical systems and organs. Fifty-eight pages are appropriated to the semeiology of diseases of the brain and nerves; diseases affecting the intra-thoracic viscera occupy over an hundred pages; fifty pages are allotted to diseases of the organs of digestion; nearly the same number to diseases affecting the genito-urinary system; and nineteen pages to diseases of the skin. The work is furnished with a copious index in addition to a table of contents.

The author does not claim to have advanced any novel views. Without aiming to enlarge our knowledge of medical diagnosis, his object is to present an analysis of the symptoms and signs of disease, already sufficiently established.

The originality of the work is in the arrangement of subjects and the manner of making the reader acquainted with well-known facts. We think it would have been better had the plan of the work been either more or less comprehensive. As it is, he gives us as much, but not much more, relating to diagnosis, than is embraced in most of the treatises on the practice of medicine. A volume of a little over four hundred pages is insufficient to do justice to the diagnostic points involved in the discrimination of nearly all the diseases in the nosological calendar. In giving to the work so wide a range, and yet restricting its size within moderate limits, a degree of condensation was necessary, which renders it less readable and satisfactory than if the author had accorded to himself greater space; and if a larger book was considered objectionable, we cannot but think that the work would have been more attractive and useful had its scope been less comprehensive.

In several instances the *signa diacritica* of diseases are treated of so briefly as to be likely to leave in the mind of the inexperienced reader an erroneous impression respecting the difficulty of the differential diagnosis. As an example, we may specify croup. The diagnosis of this affection is considered in a page and a half, and the distinctive features of true, as contrasted with those of false croup, occupy twelve lines! Again, pleurodynia, as distinguished from pleurisy, is disposed of in a single paragraph; and the diagnostic points which characterize intercostal neuralgia, are not even alluded to. Under the head of "alterations of sensibility," we were disappointed in finding no reference to the hyperæsthesia of the abdomen, which simulates some of the most prominent of the symptoms of peritonitis, and not unfrequently misleads the young practitioner; nor is this condition mentioned under the head of peritonitis. We cite these simply as illustrations to which others might be added.

We have not proposed to ourselves to write a critical review of the work. Were we to do so, we should be compelled to notice several inaccuracies which arrested our attention during its perusal. Some of these seem to arise from want of care in the composition. We cannot, for example, suppose that, with due reflection, a practitioner of Dr. Barclay's experience would make the following statement: "Irregularity of pulse invariably indicates disease of the heart" (p. 190). As another instance of a careless mode of expression, we quote the following: "The duration of the different affections of the chest varies in a very remarkable degree; it is but a few days in acute inflammation; in chronic bronchitis and phthisis, the more severe symptoms may be spoken of as having existed for some weeks; there have been probably months of continuous ailment in galloping consumption, etc." (p. 189). In the same category belongs the following: "Erosion is found either as the result of ulceration of the mucous membrane, or as the fatal termination of an aneurism when the vessel has burst into the stomach. Both forms of hemorrhage are severe and very often fatal" (p. 96).

The reviewer, however, might take exceptions to certain passages on other grounds than carelessness of expression. For example, when the author states that the blood in hæmatemesis may be derived "by exudation from the surface of healthy mucous membrane" (p. 96). Merely as evidence of the correctness of the remark just made, we quote the following: "The name of *remitting fever* is applied to a disease peculiar to warm climates. It is now very generally believed to be only typhus as modified by atmospherical influences of the condition of the nervous and sanguiferous systems of Europeans residing in tropical latitudes" (p. 57). This sentence includes all that is said respecting the remitting fever of adults.

As a candid reviewer of the work, we should feel bound to criticize the author's style, which is deficient in the directness and clearness so desirable in the composition of a scientific treatise. But with this defect and others to which we have briefly alluded, the work may be studied with profit both by the medical student and practitioner. We confess that it does not come up to our idea of a work on Medical Diagnosis, such as we believe might be written and such as it seems to us is much to be desired; but, in justice to the author, we freely admit that its short-comings are in a great measure due to the incompatibility of its size and scope. A. F.

ART. XXXI.—*On the Diseases, Injuries, and Malformations of the Rectum and Anus, with Remarks on Habitual Constipation.* By T. J. ASHTON, Surgeon to the Blenheim Dispensary, &c. &c. Second edition, London, John Churchill, 1857. 8vo. pp. 396.

THE success of this book of Mr. Ashton's and of the *Clinical Lectures* of Mr. Quain, and also of the works of Syme and of Curling, would seem to show that good treatises on diseases of the rectum are in extensive demand with British readers. A part of this demand, perhaps, may come from the victims of rectal maladies themselves; still, the great majority of purchasers must be regular practitioners, who prove, by their eagerness in securing all information on the subject, its urgent interest and importance.

Certain it is that there are few forms of human ailment more difficult to the surgeon and distressing to the patient, or in which both parties are more likely to look everywhere for assistance and relief. We cannot help feeling considerable surprise, therefore, that the excellent monograph of Mr. Bushe which was published in this country some twenty years ago, and is still very nearly equal, if not in some respects superior, to either of the British publications just alluded to, should neither have gone to a second edition, nor had an original successor, from the American press.

We regret this particularly, since the volume now before us, though containing a large amount of useful matter and numerous cases and observations which are entirely its own, nevertheless owes to the pages of Dr. Bushe some of its best parts. To such an extent, indeed, have the appropriations of whole successive pages, without allusion to their source, availed our author, that, in this instance at all events, he might have followed the more humble example of his American confrères, and adopted, with propriety, if not advantage, the much abused practice of reprinting with notes and additions, which has excited the virtuous indignation of so many of the self-approving, and the interested purists on both sides of the Atlantic.

Mr. A. gives ample evidence, however, in the original portions of his book, of the ability to sustain himself without resorting to the labours of his predecessors; and he has made so many additions to his previous edition, suggested by greater experience, extended reading and accumulated notes of cases, that it is a great pity that he did not avail himself of the opportunity to devote the additional time and labour needed to expurgate the new edition by the substitution of his own language and arrangement, wherever necessary, for that of Mr. Bushe, and by the distinct acknowledgment and reference to the same authority for cases and other matter presented verbatim in the first edition, but without quotation marks or any definite citation.

As this act of simple justice to his own production, as well as to one which he justly acknowledges to have been his ablest monitor and the most complete work of its day, does not appear to have been accomplished, we cannot regard the essay of Mr. Ashton as entitled to rank as an original work with those of Syme, Curling, or Quain, and still less with its model, that of Mr. Bushe. Nevertheless its merits as a practical instructor, well arranged, abundantly furnished with illustrative cases, and clearly and comprehensively, albeit too diffusely written, are incontestable. They have been sufficiently indorsed by the verdict of his countrymen in the rapid exhaustion of the first edition, and they would certainly meet with a similar reward in the United States were the volume placed within the reach of American practitioners.

After a short and sensible introduction, from which we shall quote a few paragraphs, directly, he discusses the various affections of the rectum in twenty chapters. Each of these chapters is concluded with a series of cases presenting clinical examples of the disease with which it is occupied. These diseases are severally discussed at greater or less length, according to their importance, in the following order: Irritation and Itching of the Anus; Inflammation and Excoriation of the Anus; Excrescences of the Anal Region; Contraction of the Anus; Fissure of the Anus and Lower Part of the Rectum; Neuralgia of

the Anus and Extremity of the Rectum; Inflammation of the Rectum; Ulceration of the Rectum; Hæmorrhoidal Affections; Enlargement of Hæmorrhoidal Veins; Prolapsus of the Rectum; Abscess of the Rectum; Fistula in Ano; Polypi of the Rectum; Stricture of the Rectum; Malignant Diseases of the Rectum; Injuries of the Rectum; Foreign Bodies in the Rectum; Malformations of the Rectum and Anus; Habitual Constipation.

The professional reader cannot fail to meet with a great amount of information, upon numerous important questions suggested by the various captions of the formidable list above enumerated, which is probably better and more fully given in the chapters of Mr. Ashton than in those of any other author with which we are acquainted. We are so well satisfied of this that, were it not for the embarrassment inseparable from the palpably non-original character of some portions of his volume, our brief notice might have been extended into an elaborate review. The subject is so important, and so interesting to all medical inquirers, and comes home to more or less of the personal experience of so large a majority of all classes of society, and yet receives so little formal attention in our journals as well as in the text-book and lecture-room, that no reasonable opportunity ought to be neglected to arouse attention to its study.

In the absence of a methodical analysis and discussion of Mr. Ashton's work, we cannot do better, in order to show his estimate of the subject, and his philosophical and practical mode of treating it, than to conclude with the following quotation from his introduction:—

"In the whole range of surgical pathology no class of diseases among civilized communities is so prevalent, causes more suffering, or induces so many varied and distressing sympathetic affections as those of the rectum; happily for the sufferers none succumb more readily to judicious, and, in the majority of cases, to simple treatment, when it is put in force at an early period of the malady; but unfortunately, as it often happens, from a mistaken delicacy on the part of the patients, or from some other cause, proper advice is not sought till the constitution has become seriously deranged, or the local affection no longer endurable; or it may be that, under preconceived and erroneous notions as to the nature of the affection, or from the prominence and severity of some one of the sympathetic effects, the sufferers are induced to adopt a variety of empirical remedies which fail to afford the desired relief and restoration of health, and which are often productive of the most pernicious results.

"From the important functions of the rectum, from the constant or recurrent pain attending diseases affecting it, induced each time the bowels evacuate their contents, and the serious constitutional disturbance these diseases excite, they require the careful attention and deep consideration of the surgeon. In past ages and in the present time a popular idea has prevailed that a deeper knowledge of, and a more intimate acquaintance with, the diseases of any certain organ is obtained by an exclusive consideration of that particular part; but no greater fallacy can be conceived, it being only by a comprehensive view, and after due consideration of all the symptoms produced, and the various phases presented by disordered function and organic change in the various parts of the animal economy, that a just conclusion as to the *fons et origo mali* can be arrived at. Perhaps few classes of disease exemplify the necessity of a wide and mature consideration more than those implicating the rectum, either primarily or secondarily; for the same symptoms will often be found existing under the opposite conditions of cause and effect. Thus, in the female, many instances have occurred of stricture of the rectum being supposed to exist, and a long and useless treatment had recourse to, when ultimately all the patient's sufferings were found to depend on a displaced uterus, or on some morbid enlargement or growth of that organ; and the converse is not unfrequently the case, of a patient being treated for leucorrhœa or uterine disease, whilst the real source of the symptoms has been in some affection of the rectum. In the male also, will be observed stricture of the urethra, diseases of the prostate gland and bladder simulating those of the rectum; or, on the other hand, diseases of this portion of the alimentary canal producing irritability and other disturbance of the genito-urinary organs. Nor is it in contiguous parts alone

that the reaction of one organ on the other is met with, it is necessary therefore to hear in mind the more remote sympathies induced in the cephalic, thoracic, and abdominal viscera, as evinced by headache, vertigo, impaired vision, palpitation of the heart, gastric distension, pain, and sickness; and deranged secretion from the kidneys, as exhibited by the various urinary deposits.

"Formerly some of the affections of the rectum, which in reality are very simple in themselves and easily relieved, rendered the subjects of them the victims of the most painful and in many cases dangerous operations. But by the advance of surgical science generally, and the study and observation of these particular diseases, even the most painful of them may generally be remedied by medical treatment; and when an operation is necessary for the removal of morbid structure or for the purpose of inducing a healthy reparative process, it is simple in character, quickly performed, occasioning but a slight amount of pain, and confining the patient for only a very limited period. Thus fistula in ano, which, at a comparatively recent period, was considered among the heaviest afflictions that flesh is heir to, from the barbarous treatment that was then practised and considered necessary, as a consequence of the false notions and erroneous pathological principles that prevailed, and which led to the scooping out of the parts in the track of the fistula, or to the extensive destruction of the surrounding tissues by corrosive unguents, is now remedied by a slight incision, performed in a few seconds, and not occasioning the loss of more than a few drops of blood. It was only a few years since it was deemed essential for the cure of fissure of the anus to entirely divide the sphincter muscle, but it is now proved that when an incision is required it is not necessary to make it more than a few lines in length, and to extend it no deeper than through the mucous and submucous tissues. In all operations about the anus the general rule in surgery, that of not removing more of the integument than is necessary, cannot be too forcibly insisted on; for if this is not observed the patient will be doomed to much inconvenience and misery by the contraction that ensues.

"The constitutional origin of these local affections and their reaction on the general system, when their cause has been extrinsic, must always be borne in mind, for if this be overlooked, our hopes of success in the treatment will often not be realized.

"Besides prescribing proper remedies and giving strict injunctions with regard to diet and exercise, it is advisable that the surgeon should apply the dressings with his own hands, for though there is no difficulty in the matter, and little skill required, yet it is essential to the comfort and recovery of the patient that they should be accurately and properly adjusted; nurses and attendants, from not thoroughly apprehending the object to be attained, are too apt either to cram and distend the parts with the dressings, or not to approximate them with sufficient nicety; the surgeon should also exhibit the enemata, unless he has some intelligent and trustworthy person on whom he can rely. These matters may appear comparatively trifling, but if they pass unattended to we shall often be disappointed in the result of our treatment, let it in other respects be ever so skilfully and well directed"—pp. 1–5.

We are satisfied, after a careful examination of the volume, and a comparison of its contents with those of its leading predecessors and contemporaries, that the best way for the reader to avail himself of the excellent advice given in the concluding paragraph above, would be to provide himself with a copy of the book from which it has been taken, and diligently to con its instructive pages. They may secure to him many a triumph and fervent blessing, the value and strength of which can be known only to those who have been scorched in the furnace of affliction, the fires of which, it is their province to extinguish.

E. H.

ART. XXXII.—*Plates Illustrative of Wilson on Diseases of the Skin.* Fourth Edition. Philadelphia, Blanchard and Lea, 1857.

In the Number of this Journal for Oct. 1857, will be found a review of the fourth edition of *Wilson's Treatise on Diseases of the Skin*, in which the highly scientific and practical character of the work is pointed out, and its great merits as a guide to a knowledge of the nature of those diseases, and of the best means of treating them, are fully considered.

Although more than a year has elapsed since the publication, in this country, of the text of the work, the illustrative plates have only just now been issued. While we think we have reason to complain of this delay, we are forced to admit that it must have required some time to execute these plates, in the style in which they are now presented to us. For beauty of drawing, accuracy of illustration, and delicacy and finish of colouring, these illustrations are superior to anything of the kind hitherto published in this country.

The volume contains nineteen plates.

Plate I. represents, in eight figures, the structure of the scarf skin.

Plate II. exhibits the anatomy of the sensitive skin and nail, in six figures.

Plate III. contains eighteen figures, illustrating the anatomy of the sebiparous glands.

Plate IV. exhibits the anatomy of the hair, in sixteen figures.

Plate V. represents two views of the acarus scabici magnified 107 times, a view of the fore feet magnified 456 times, and two ova of the animalculs.

Plate VI. contains ten figures, illustrative of the structure of warts and corns, together with some diseases of the sebiparous glands.

Plate VII. represents congestive inflammation of the derma, in its several forms—urticaria, roseola, and erythema.

Plate VIII. represents the asthenic group of effusive inflammation of the derma—pemphigus, rupia, in their various stages and several varieties.

Plate IX. contains the delineation of the sthenic variety of effusive inflammation of the derma—herpes and eczema, with their several species, and at different periods of their course.

Plate X. represents suppurative inflammation of the derma—impetigo and ecthyma, their species and various appearances.

Plate XI. is devoted to the delineation of the depositive inflammation of the derma—lichen, strophulus, prurigo, and their several species.

Plate XII. presents representations of the squamous inflammations of the derma—lepra, psoriasis, and pityriasis, and their several species.

Plate XIII. represents lupus non exedens, taken from a characteristic case which had persisted for thirty-three years.

Plates XIV. and XV. contain representations of the diseases of the hair-follicles, and hairs—acne, sycosis, favus, trichoeis.

Plate XVI. represents various exanthematous and papular syphilitic eruptions.

Plate XVII. represents tubercular syphilitic eruptions.

Plates XVIII. and XIX. contain representations of various syphilitic eruptions, and of diseases arising from syphilitic poison.

It cannot fail to strike the reader that this is a very complete atlas of Dermatology, and we feel sure that, on examination, he will be satisfied with its accuracy and artistic execution.